

FIG. 1

378 VESEDTSSLFDKLLKEPDALILLAPAAGDTIISLDFGNSDIEIDDOOLEEVPLYNVMLP MOP1
380 GAVSEKSNFLFTKLEPEELAQAPTPGDATISLDFGNONFEESAYKATILLPSQOPWA MOP2
475 THPIVPGIPGGTRAGAGKIGRMIAEEIMEIHRIRGSLRSCGSSPLNISTPPDASSPG MOP3
386 EPROHFNALDYGAGSLNISHSPSASSRSHKSHTAHSEPTSTPTKLMAEASIPALPRSA MOP4
332 PPTGKOAAPAEANEAPOTIOGKRIVKEPGPRETKGSEDSGDEDPSSHPATPRPEFTSVIRA MOP5

438 SPNEKLONINLAMPSPITAEITPKLRSSADPALNOEVALKLEPNPESLESLSFTMPQ100Q MOP1
440 TELRSHSTOSEAGSLPAFTVPOAAAPGSTITPSATSSSSCSITNSPEDYITSLDNDLKIE MOP2
535 GKILNGGTPTDIPSSGLLSGOAENPGYPYSSSSSITGENPHIGIDHIDNDGSSSPSND MOP3
446 TLPEELVPGLSOAATMAPLPSPPSSCDLTOOLLPTVLOSTPAPHAOFSAOFSMFOTIK MOP4
392 GVLKODPVVRWGLAPPGGPPITLLHAGFLPPVVRGLCTPGTTRYGPAELGLVPHLORLG MOP5

498 TPSPDGSSTROSSPEPNSPSEYCFYVDSOMVNEFKLELVEKLFADTEAKNPFSTOOTDL MOP1
500 VIEKLFANDTEAKDOCSOTOTDFNELDLEITLAPYIPHDGEGFOLSPICEPERLLAENPOST MOP2
595 EAHAVIMSLLEADAGLGGPVDFSOLPWPL MOP3
506 DOLERTIRILOANIIRWOOEELHKTOEOLCLVODSNVOMFLQOPAVLSFSSTORPEAQOQ MOP4
452 GGPALPEAFYPLGLPYPGPAGTRLCPRKGD MOP5

558 DLEMLAPYIPHDDFOLRSFDOLSPLESSASPESASPOSTIVTFQOTIQEPTANATIT MOP1
560 POHCFSAMTINIFOPLAPVAPHSPLDKDFQOOLESKKTEPERRPMSSIFFDAGSKASLPP MOP2
566 LOORSAAVTOPOLGAGPOLPGOISSAOVTSOHLRESSVISTOGPKPMRSSOLMOSSGRS MOP4

618 TATIDELKTIVIKRMEIDIKILLTASPSPTHHKETTISATSSPYRDTOSRTASPNRAGKVI MOP1
620 CCGDASITPLSSMGSRNTOWPPDPLHFGPIKWAVGDORTIEFLGAAPLGPVSPPHVSIF MOP2
626 IPAERRSLPLPVGLVS MOP4

678 EOTEKSHPRSPNVLVALSORTIVPEEELNPKILALONAORKKRMEHOGSLFOAVGIGITL MOP1
680 KTRSAKGFARGPNVLSPAMVALSNKLKLKROLEYEKOAFODPSGGGPPGGTSHLMWKR MOP2

738 LOOPDDHAAITISLWKRKVKCKSEONGMEOKTIIILIPSDLACRLLGSMDESGLPOLIS MOP1
740 MNLRGGSCPLMPDKPLSANVPNDKLTONSHRGLGHPLRHLPLPOPPSAISPGENSKSRF MOP2

798 YDCEVNAPIOGSRNLLOGEELLRALDOVN MOP1
800 PPOCYATOYODYSLSAHHKVSMSRLLGPSFESYLLPELTRYDREVKVPVLGSSSTLLQG MOP2

860 GDLLRALDOATM MOP2

FIG. 2

1 MSKEAVSLWALIVSLOPPVPLVCVREMTGSGRRKQOOCVTLPIISRELCLVLLFPPLRLEYTEHOGGIKN MOP3
1 MTADEKKRSSSER MOP2
1 MEGAGANDKKKISSER MOP1
1 MDEDEKDR MOP4
1 NSRRPALRAAAAGARAGGPGSGOPPEOH MOP5

18 RKEKSRDAARRRKRSEKEVFYELAHOLPLHNVSLLDKASVHRLTISYLRVKRLKLLDA-- MOP1
15 RKEKSRDAARRRKRSEKEVFYELAHOLPLHNVSLLDKASVHRLTISYLRVKRLKLLSSVC MOP2
71 AREAHSOIEKRRDKMNSFIDELASLVPTCNAMSRKLDKLTVMAYVORHKTILRGAINPY MOP3
9 KRARNKSEKKRRDOFNVLKELSSMLP---GNTRKMDKTIIVLEEVIIGFLOKHEVSAOT MOP4
29 ----- MOP5
basic region
helix-loop-helix
A-repeat

76 GOLDIEDD-----MKAOMNCFYKALDGFVMVLTDGDMHILYISONVNKYMGLTOFEL MOP1
75 SENESEAE-----ADOOHNLKALDGFIAVVTDDGDMIFLSENISKFMGLTOVEL MOP2
131 T-----EANYKPIFLSDDELKHLILRAADGFLVVGCGRGKILFVSESVKILNYSONDL MOP3
66 EICDIOODWKPSFLSNEEFTOLMLEALDGFITAVITDGSITIVYSOSTIPLLGHLPSDVM MOP4
34 -----LGGHILOSLDGCVFALNOE-GKFLYISEITVSYLGLSIVEM MOP5
A-repeat

129 GHSVDFTHPCDHEEMREMLTHR-----NG--LVKKGKEONT- MOP1
128 GHSIFDFTHPCDHEEIRENLSLK-----NGSGFGKSKKSHST- MOP2
187 GOSLFDLHPKDIKAKVEQSSDITAPRELIDAKTGLPWKIDITPGPSRLSGGARSFF MOP3
125 DONLFLPEOEHSEVYKILSS-----HMLVTD-----SPSEYLKSGDGLFE MOP4
70 GSSVFDYIHPGDHSEVLEQGLRITIP-----GPTPPSVSSSSSSSSSLADIPEIEASL MOP5
A-repeat

164 -----ORSF-----FLRMKCTILSRGRTHNIKSATW-KVLHCITGTHHYDT-N MOP1
165 -----ERDF-----FMRHKCIVINRGRIVNLKSAIW-KVLHCIGOVKYVNNCP MOP2
247 CRMKCNRPVAKVEDKDFPS-TCSKKKAORKSCTIHSI---GYLKSWP-PITKGLDEONE MOP3
169 CHLL-----RGLSNRKEFTIYEYIKFVGNFRSYNNVPSGNGFDNLTSPRCPLRAHGE--- MOP4
125 TKV-----PPSSLVQERSF-----FVRMKSTILTRG--LHVKASGY-KVITHVTRGLRAHA--- MOP5
A-repeat

205 SNPOCCGYKKPPMICLVLC---EPIPHPSNIEIPLDS--KIFLSRHSIDMKFSYCDER MOP1
207 PHNSLCGYKEPLLSCLIIMC---EPIDHPSHMDIPLDS--KIFLSRHSIDMKFTYCDOR MOP2
302 PONECCN-----LSCLVAIGRLHSHVPOPVNCEIRVKSMM--EYVSRHAIDGKFVFDOR MOP3
223 -----VCFTATVRLAT---POFLKEMCIVDEPLEEFTSRHSLEWKFLFLDHR MOP4
172 -----LG-LVALG---HILPPAPLAELPLHG--HMTIVRLSLGLLILACES MOP5
A-repeat

259 ITELMGYPEELLGRSTIYHYHALDSHDLTKTHDMFIT-KGOVITIGOYRMLAKRGYVWV MOP1
261 ITELMGYPEELLGRSAVEFYHALOSENMTKSHONLCT-KGOVVSOGYRMLAKHGGYVW MOP2
355 ATAILAYLPOELLGISCYCYFHODDIGHLAECRQVLDITREKTIINCYKFKIKOGSFTIL MOP3
267 APPITIGLPEFVLGTISGYDYHIIDLELLARCHOHLMOF-GKCKSCCYRFLTKGOOWJWL MOP4
213 VSDHDDLGPSELVGRSCYOEYHGDDAIRLRQSHVDLLD-KGOVHI1GYRWLORAGGFVWL MOP5
B-repeat

318 ETOATVIYNTKNSOPOCIVCVNYVYVSGIIOHDLJFSLQOITECVLKPVESSDMKMIQLFTK MOP1
320 ETOGITVYNPNRLPOCIVCNVNYLSEITEKNDVVFSHOOTESLFPKPLHMHNSIFDSSGK MOP2
415 RSRWFSFNPWNTKEVEYINTVVLNVLWLEGOPIFPOLTASPHSMDSLPSGEGPKR MOP3
326 QTHYYIT1YHWNKPEFIVCTHSHVSYADVRVERROELALEDPPEALHSSALKDKGSSL MOP4
272 OSVATVAGSGKSPGEHVLWVSHVLSOAEGGQIPLDAFOLPASVACEEASSPGPEIPE MOP5

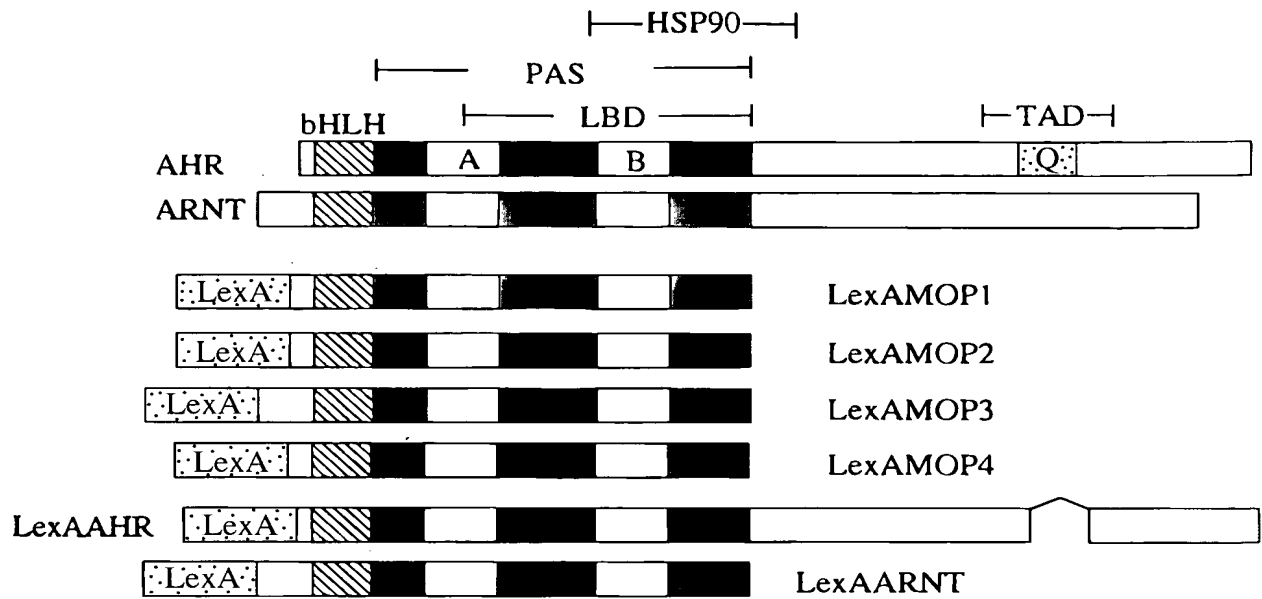


FIG. 3A

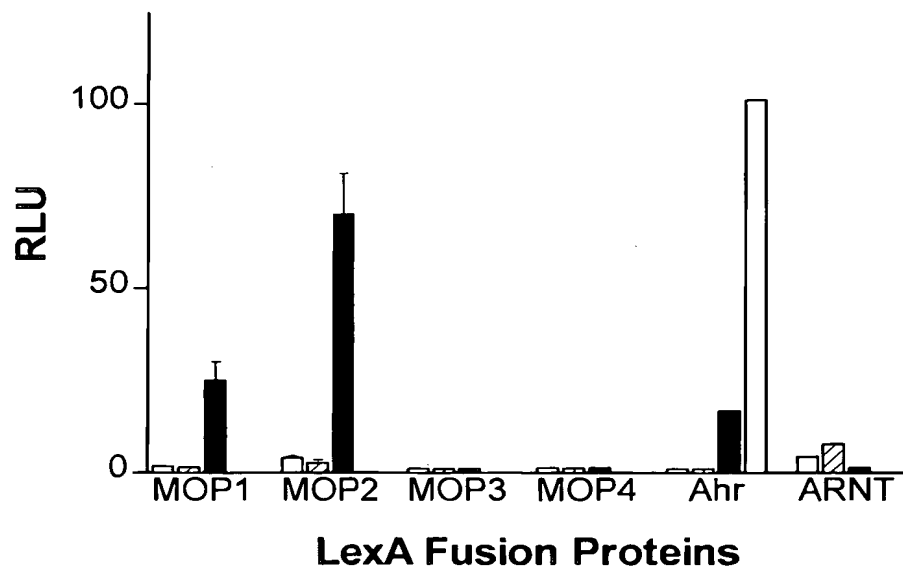


FIG. 3B

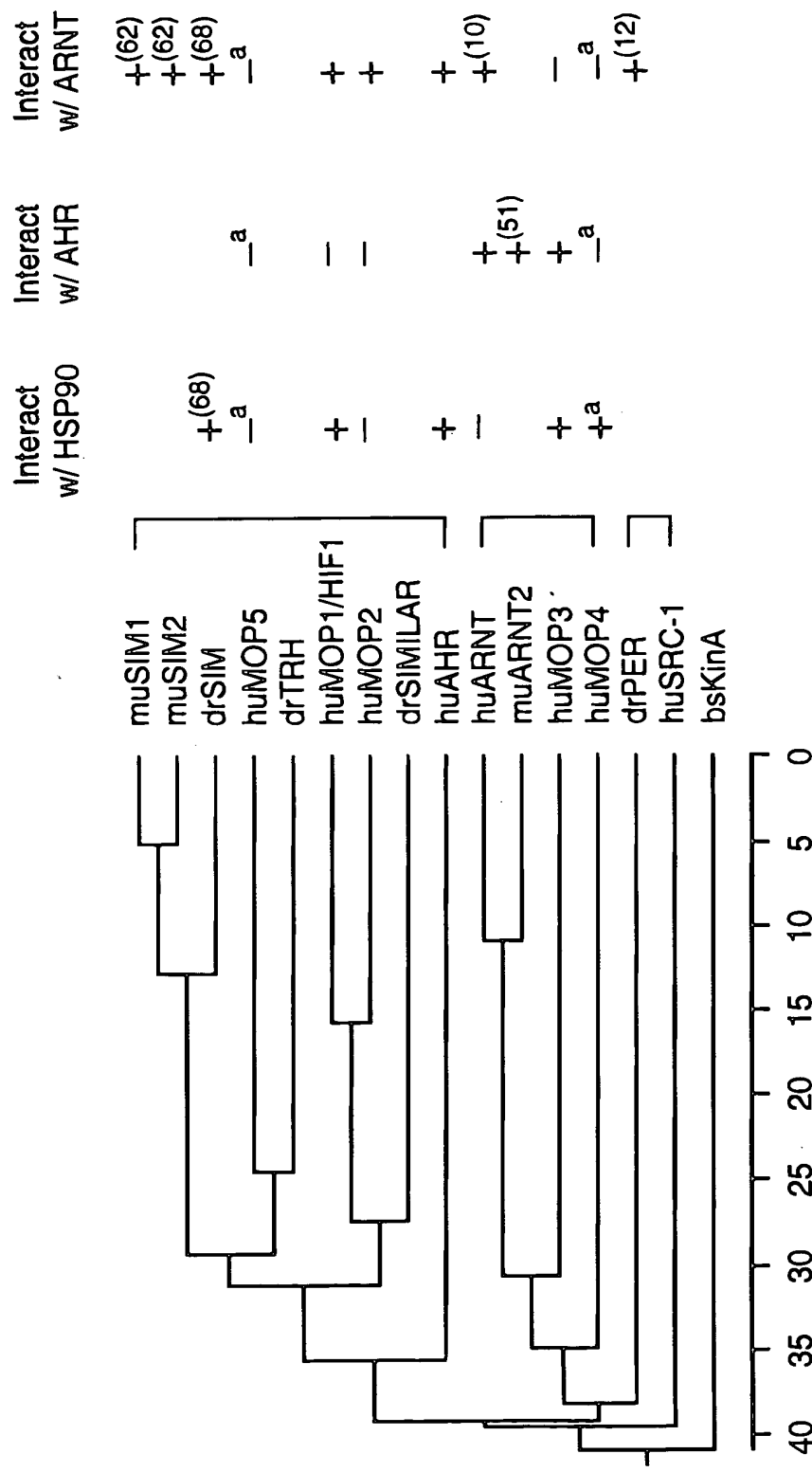


FIG. 4

g	g	G	G	C	A	C	G	T	G	A	C	A	C
G	G	T	A	C	A	C	G	T	G	A	C	C	c
t	g	a	a	C	A	C	G	T	G	A	C	C	C
t	g	a	a	C	A	C	G	T	G	A	C	T	C
g	g	G	C	C	A	C	G	T	G	A	C	C	T
G	G	G	A	C	A	C	G	T	G	A	C	C	g
c	T	A	A	C	A	C	G	T	G	A	C	C	G
g	a	a	c	C	A	C	G	T	G	A	G	C	T
t	g	a	a	C	A	C	G	T	G	A	C	A	C
g	G	G	T	C	A	C	G	T	G	A	C	T	C
G/T	G	A/G	A	C	A	C	G	T	G	A	C	C	C
-7	-6	-5	-4	-3	-2	-1	+1	+2	+3	+4	+5	+6	+7

FIG. 5

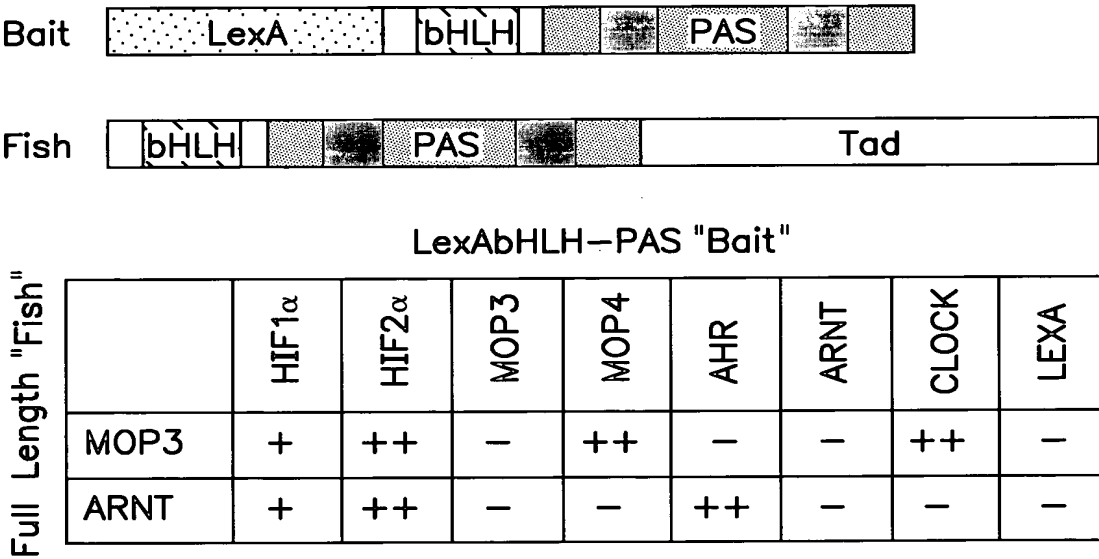


FIG. 6

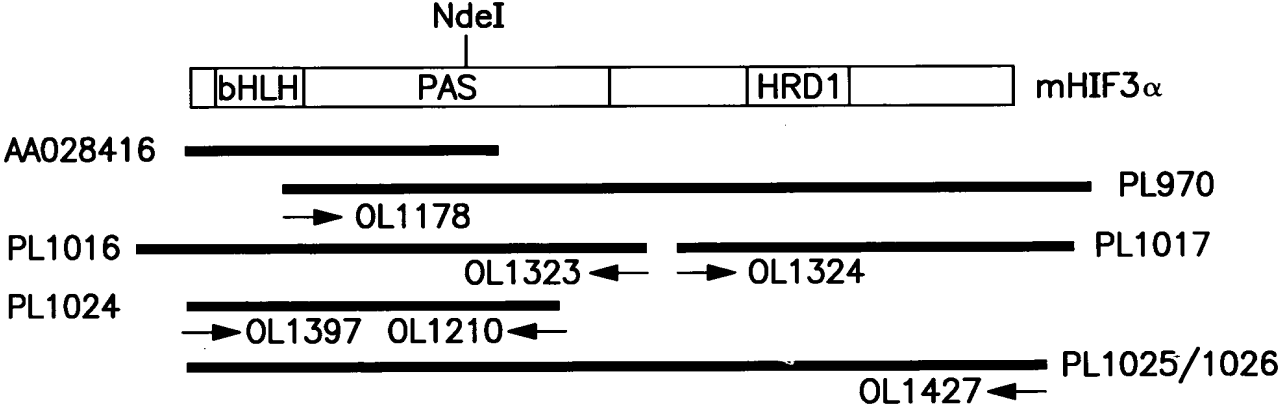


FIG. 7

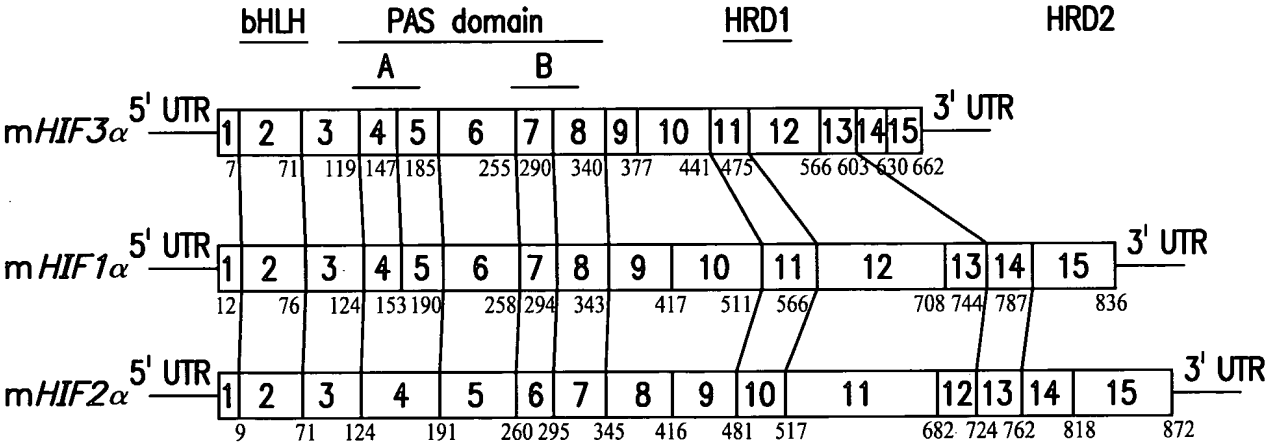


FIG. 8